United States Patent

Graup

[15] **3,678,540**

[45] **July 25, 1972**

[54] STRAP HOLDER CONSISTING OF TWO ELEMENTS

[72] Inventor: **Josef Graup,** Klingenweg, 8260 Stein am Rhein, Switzerland

[22] Filed: **Feb. 25, 1970**

[21] Appl. No.: **14,117**

[30] **Foreign Application Priority Data**

March 3, 1969 Austria ..... A 2069/69

[52] **U.S. Cl.** ..... **24/70 SK,** 24/176

[51] **Int. Cl.** **A43c 11/14**

[58] **Field of Search** ..... 24/68 SK, 69 SK, 70 SK, 191, 24/265 WS

[56] **References Cited**

UNITED STATES PATENTS

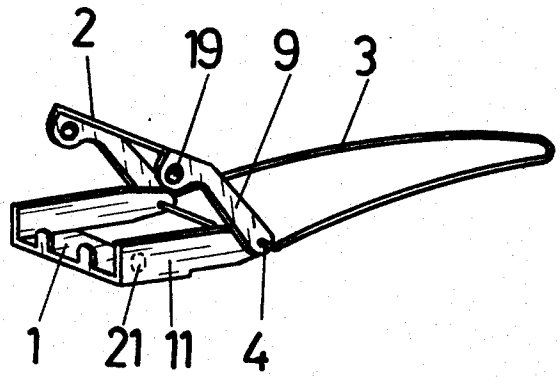
3,259,950	7/1966	Teufel	24/70 SK
1,820,393	8/1931	Kestenman	24/191
3,363,288	1/1968	Lange et al.	24/68 SK
3,393,430	7/1968	Baso	24/70 SK
1,783,306	12/1930	Otten	24/191
1,795,609	3/1931	Kreisler	24/191
2,251,463	8/1941	Myrberg	24/265 WS

Primary Examiner—Bobby R. Gay
Assistant Examiner—Darrell Marquette
Attorney—Kemon, Palmer & Estabrook

[57] **ABSTRACT**

Clasp for a strap in buckle-type fasteners for ski or mountain boots has first and second elements hinged together at one end to interlock at the other end with the end of the strap and a third element hinged to at least one of the first or second elements for engagement with the closure lever of the fastener.

2 Claims, 8 Drawing Figures



PATENTED JUL 25 1972

3,678,540

SHEET 1 OF 3

Fig. 1

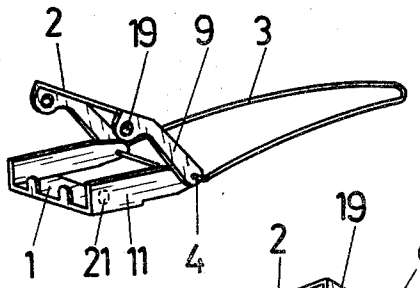


Fig. 2

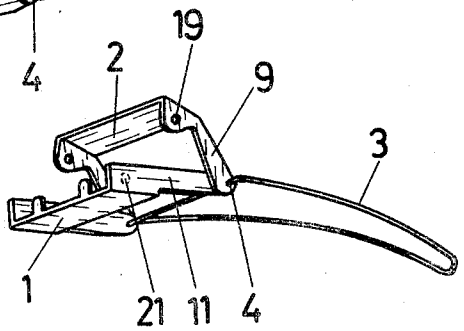


Fig. 3

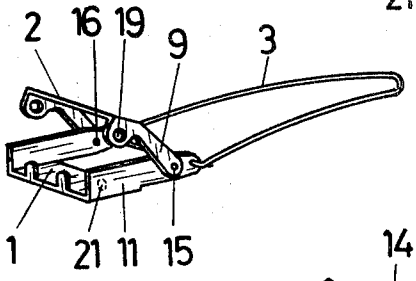
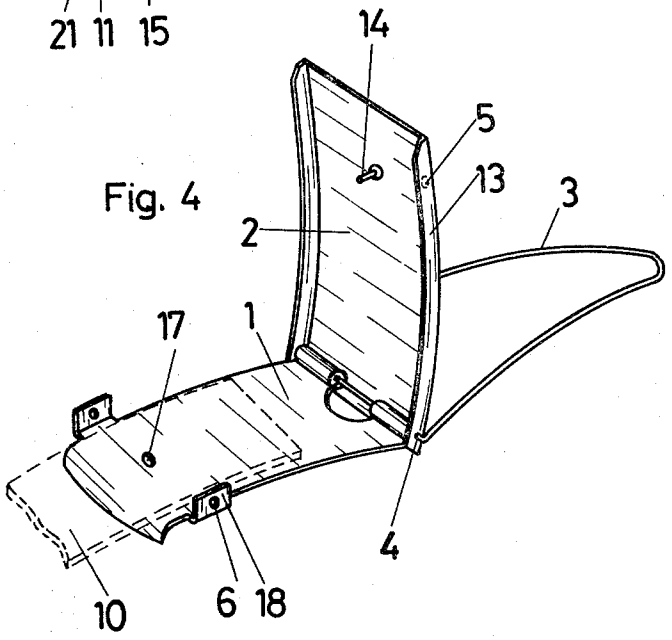


Fig. 4



INVENTOR
Josef Kramp
BY
Kenyon, Palmer & Estabrook
ATTORNEY

Fig. 5

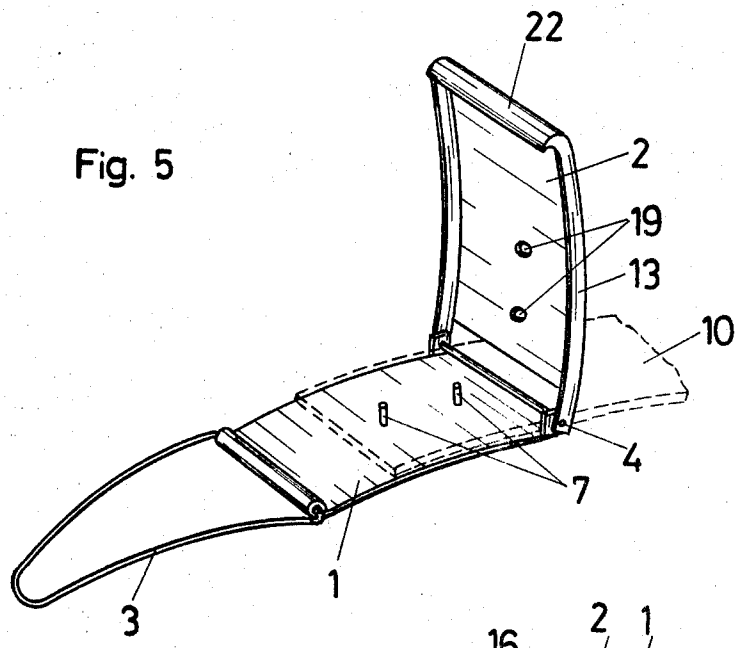


Fig. 6

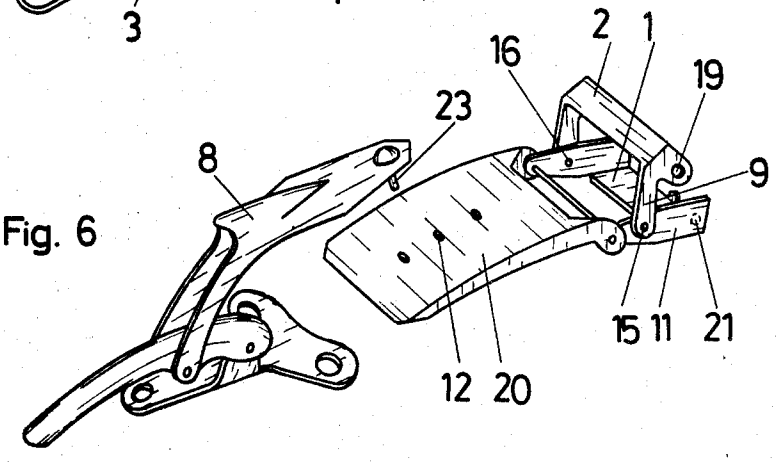
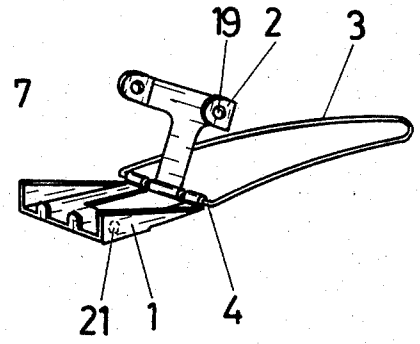
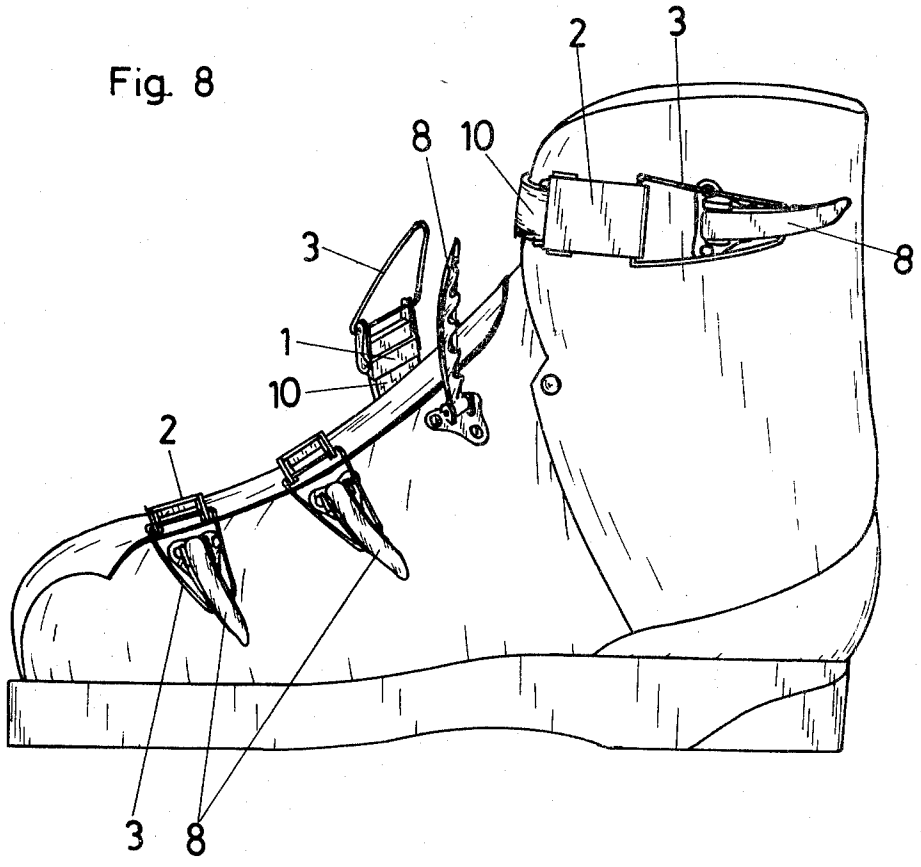


Fig. 7



INVENTOR
Josef Brauz
BY
Kenan, Palmer & Escabrook
ATTORNEY

Fig. 8



INVENTOR
Joseph Graupe
BY
Kenyon, Palmer & Estabrook
ATTORNEY

STRAP HOLDER CONSISTING OF TWO ELEMENTS

This invention relates to a strap holder consisting of two elements for tighteners on ski or mountain boots, comprising a hoop engageable into notches of a holding device.

With usual holders of this kind it is difficult to engage the strap fastened to the shoe shaft into the holder by its loose end, since the thickness and breadth of this strap vary greatly. This is not only inconvenient for the user if he finds it necessary to adjust the strap in length; it is also of disadvantage at the sale of buckle ski boots and mountain boots, since female shop assistants frequently avoid to offer shoes of this kind on account of the hand injuries and the breaking of nails which are often connected with the adjustment of the straps. The difficulty of engaging straps into holders is also found in the final fabrication of boots provided with buckles, since fabrication is slowed down and costs are increased.

To eliminate these disadvantages it has been proposed to form the holder of two elements, one of which is resilient; the two elements are to be fastened to each other at least on two opposite sides and are to engage into each other releasably on at least one of these sides. With the described embodiment the strap can be inserted into one element of the open holder and can be held in the first when the other element is hooked in. It is of disadvantage, however, that the two elements are not connected with each other; thus one or both holder elements get readily lost if the strap holder opens involuntarily, which so often happens when going in for sports.

A strap holder avoiding the aforesaid disadvantages is required, in which the strap can be engaged or adjusted readily and rapidly, and the user is ensured against losing one or both elements of the holder.

This is realized according to the invention in that the two elements of the strap holder embracing the strap end in closed condition are in swivel connection and are engageable into each other, the hoop to be engaged into the holding device being in known hinge connection with at least one of the elements.

A common axis or two common pivot pins are preferably used for swiveling the hoop and the elements, said axis or said pivot pins being preferably formed by the ends of the hoop connected to each other. The swivel end of the elements can have the form of a hinge swiveling on the axis if a continuous axis is used.

A further preferable embodiment provides to arrange the pins serving as swivel axis on one of the two elements, said pins resting rotatably in bores of the other element. Here the hoop is arranged on an independent swivel axis.

The elements can also have the form of U-bent clips with adjoint pieces, in which rest the swivel axis or the pivot pins, the adjoint pieces of one U-shaped clip being adjacent to these of the other clip; in working position, they can be connected with each other by noses on one piece engaging into bores of the other piece.

A further embodiment of the invention provides that the elements of the strap holder consist of a plate to which a case is in hinge connection whose angular parallel edges embrace said plate; said case is provided with plugs corresponding to bores in said plate and with notches on its parallel edges to which correspond bores in raised lashings of the plate. An embodiment is preferable in which the elements of the strap holder consist of a plate and a case in hinge connection, said case being engageable into said plate by an arched front side, the angular parallel edges of said case embracing said plate, a hoop to be engaged into said holding device being hinged to the end of the plate facing away from the swivel axis for the plate and the case, said plate being preferably provided with plugs corresponding to bores in said case on the end adjacent to said swivel axis.

According to the two last mentioned embodiments the element to be engaged into the support of the tightener consists in that a case-like plate with bores is provided which is to be engaged into the holding device, a plug of the known holding device being engageable into said plate.

Further details of the invention are hereinafter described with reference to the accompanying drawings without the invention being limited to them. In the drawings:

FIGS. 1 and 2 are oblique perspective views of a first embodiment from the top and from the bottom.

FIGS. 3 to 5 are oblique perspective views of a further embodiment from the top.

FIG. 6 illustrates a strap holder according to the invention with a holding device, a case with bores being used instead of the hoop to be engaged.

FIG. 7 illustrates an embodiment wherein one element of the strap holder can be swiveled like a hinge on the hoop serving as a swivel axis. FIGS. 6 and 7 are also perspective views.

FIG. 8 shows a strap holder according to the invention, arranged on a boot.

In the embodiment according to FIGS. 1 and 2 the strap holder consists of elements 1 and 2, said elements commonly resting by their adjoint pieces 9 and 11 on the end of the hoop or bail 3 having the form of a swivel axis 4 and being swiveled independently from each other.

The clip-like front end of the bottom element 1 is provided with teeth which are pressed into the inserted strap end 10 and engage into prefabricated bores of the latter, if the strap holder is closed; thus the clip-like element 1 is embraced from outside by the top element 2 so that the noses 21 engage into the bores 19 of the top element 2. The hoop 3 consists, as is known, of a suitably bent steel wire whose ends are welded to each other or firmly and unreleasably connected with each other in some other way.

In an embodiment according to FIGS. 1 and 2 the common swivel axis 4 formed by the hoop 3 is convenient, since the costs of production are very low.

In FIG. 3, which is similar to the embodiment according to FIGS. 1 and 2, the hoop 3 rests independently and the elements 1 and 2 can be swiveled about a special axis which is formed by plugs 15 on the adjoint piece 9 of the element 2, said plugs resting in bores 16 on the adjoint piece of element 1. The rest corresponds to the first embodiment.

FIGS. 4 and 5 show embodiments comprising a plate and a case instead of clip-like elements, said plate corresponding to the element 1 and said case to the element 2. In FIG. 4 a common swivel axis for all elements is provided, said swivel axis being formed by the end of the hoop 3 like in the first embodiment. The end of the plate embraces said axis 4 like a hinge. When the two elements are closed, the noses 5 of the case engage into bores 6 of raised lashings 18 of the plate, plugs 14 on the inside of the case being passed through corresponding bores in the strap end 10 and being engaged into bores 17 of the plate, thus firmly holding the strap ends 10. Thus the parallel edges 13 of the case embrace the plate from outside by their lashings 18.

In the embodiment according to FIG. 5 a plate with a case is used too. Here the hoop 3 rests independently on the end of the plate opposite to the swivel axis 4 of the elements 1, 2. Plugs 7 are provided for holding the strap end 10; however, said plugs are arranged on the plate and can engage into bores 24 on the case; the front side 22 of said case is arched in such manner that it embraces the support of the hoop 3 and engages into it when the two elements are pressed together. All other parts correspond to the aforesaid embodiment.

FIG. 6 illustrates a strap holder with a known holding device 8, the bottom element of said strap holder having the form of a case-like plate 20 with bores 21. A plug 23 of said holding device 8 is engageable into said bores 12. The rest corresponds to the embodiment of FIG. 3.

FIG. 7 shows both elements 1 and 2 arranged in hinge connection on the swivel axis 4 of the hoop end. This arrangement can also be used in the aforesaid embodiments.

FIG. 8 illustrates the strap holder of the invention arranged on a boot. The single parts correspond to the aforesaid embodiments.

Further embodiments are possible within the scope of the invention.

What I claim is:

1. In a ski boot having buckle-type fasteners to tighten the boot upon the foot and ankle of a wearer, a strap having a plurality of spaced-apart holes therein, a closure lever that is thrown to move the strap into a tightening position and a clasp for said strap, said clasp comprising a pair of U-shaped clips and a bent metal wire bail, said clips being hinged at their open ends upon the portion of said bail that forms the swivel axis for the bail to close together at their base portions to grasp a portion of said strap, one of said clips having at least one plug to extend through one of said holes in said strap upon closing together of said clips, said bail being movable about said swivel axis for engagement with said closure lever in the operation of tightening the boot upon the wearer to put substantial tension upon said strap.

2. In a ski boot as claimed in claim 1, a clasp wherein one of said pair of clips has noses on its base portion that extend upon closing of the clasp into bores in the other clip to hold the clips together and interlock said strap between them.

* * * * *